WHAT IS CLAIMED IS:

1.   A network management unit which manages configuration of a network, comprising:

5   a network element information manager which collects and manages network element information, including layer structure of each network element;

a scenario manager which manages scenarios for use in building a model of the network;

10   a network management model builder which builds and updates a network management model automatically in response to a network construction request, consulting the network element information in conjunction with the scenarios; and

15   a network management model database which stores and manages the network management model.

2.   The network management unit according to claim 1, wherein said scenario manager manages the

20   scenarios each containing:

component data objects which represent fundamental elements constituting the network management model; and

a procedure data object which describes a series of operations for linking or delinking the component data

25   objects.

3.   The network management unit according to

claim 1, wherein:

the network construction request includes a change to be made to a particular point at physical layer of the network; and

5   said network management model builder searches the network management model to find what is currently connected to the particular point, examines the result of the search in comparison with the network element information, and if the change affects the network
10   management model, updates the network management model, using the relevant scenario retrieved from the scenario manager.

4.   The network management unit according to
15   claim 1, further comprising a display controller which displays the network management model on a monitor screen, indicating a change or failure that has occurred in the network.

20   5.   The network management unit according to claim 1, wherein said network management model database manages each network element in the network management model as a subnetwork that is defined according to the layer structure thereof, storing components of the network
25   management model in the form of resource objects.

6.   A program product for managing a network

system, causing a computer system to perform the steps of:

(a)   collecting and managing network element information, including layer structure of each network element;

5   (b)   managing scenarios for use in building a model of the network;

(c)   building and updating a network management model automatically in response to a network construction request, consulting the network element information in

10   conjunction with the scenarios; and

(d)   storing and managing the network management model.

7.   The program product according to claim 6,

15   wherein each of the scenarios managed in said managing step (b) contains:

component data objects which represents fundamental elements constituting the network management model; and

20   a procedure data object which describes a series of operations for linking or delinking the component data objects.

8.   The program product according to claim 6,

25   wherein:

the network construction request that includes a change to be made to a particular point at physical layer

of the network; and

said building and updating step (c) searches the network management model to find what is currently connected to the particular point, examines the result of

5   the search in comparison with the network element information, and if the change affects the network management model, updates the network management model, using the scenarios.

10   9.   The program product according to claim 6, further comprising the step of displaying the network management model on a monitor screen, indicating a change or failure that has occurred in the network.

15   10.   The network management program according to claim 6, wherein said storing and managing step (d) manages each network element in the network management model as a subnetwork that is defined according to the layer structure thereof, storing components of the network

20   management model in the form of resource objects.